### **ENVIRONMENTAL CHEMISTS**

Date of Report: 06/25/03 Date Received: 06/12/03

Project: Metro Self Monitor, PO# M20043, F&BI 306108

Date Extracted: 06/24/03 Date Analyzed: 06/24/03

## RESULTS FROM THE ANALYSIS OF THE WATER SAMPLE FOR TOTAL METALS BY INDUCTIVELY COUPLED PLASMA (ICP) (METHOD 6010)

Results Reported as mg/L (ppm)

|      | Sample ID     | <u>C</u> l  | hromium | Copper        | Nickel | Zinc        |
|------|---------------|-------------|---------|---------------|--------|-------------|
|      | Laboratory ID |             |         |               |        |             |
| 1000 | granta da     | Silve Silve |         |               |        | halkinant - |
|      | M20043        |             | 0.13    | 0.16          | 0.12   | < 0.05      |
|      | 306108-01     |             |         | Na Silita ani |        |             |
|      |               |             | THE TA  |               |        |             |
|      | Method Blank  |             | <0.05   | <0.05         | < 0.05 | <0.05       |

## **ENVIRONMENTAL CHEMISTS**

Date of Report: 06/25/03 Date Received: 06/12/03

Project: Metro Self Monitor, PO# M20043, F&BI 306108

## QUALITY ASSURANCE RESULTS FROM TOTAL METALS BY INDUCTIVELY COUPLED PLASMA (ICP) (METHOD 6010)

Laboratory Code: 306108-01 (Duplicate)

|          |   |            |        |          | Relative   |          |          |
|----------|---|------------|--------|----------|------------|----------|----------|
|          |   | Reporting  | Sample | Duplicat | e Percent  | Acceptan | ce       |
| Analyte  | 1 | Units      | Result | Result   | Difference | Criteria | <u> </u> |
| Chromium |   | mg/L (ppm) | 0.13   | 0.15     | 14         | 0-20     | -31      |
| Copper   |   | mg/L (ppm) | 0.16   | 0.15     | 6          | 0-20     |          |
| Nickel   |   | mg/L (ppm) | 0.12   | 0.12     | 0          | 0-20     |          |
| Zinc     |   | mg/L (ppm) | < 0.05 | < 0.05   | nm         | 0-20     |          |

Laboratory Code: 306108-01 (Matrix Spike)

|          | Reporting  | Spike | Sample | % Recov | ery Acceptance |
|----------|------------|-------|--------|---------|----------------|
| Analyte  | Units      | Level | Result | MS      | Criteria       |
| Chromium | mg/L (ppm) | 2     | 0.13   | 91      | 80-120         |
| Copper   | mg/L (ppm) | 2     | 0.16   | 94      | 80-120         |
| Nickel   | mg/L (ppm) | 4     | 0.12   | 95      | 80-120         |
| Zinc     | mg/L (ppm) | 2     | < 0.05 | 102     | 80-120         |

Laboratory Code: Laboratory Control Sample

|          | Reporting  | Spike | % Recovery | Acceptance |
|----------|------------|-------|------------|------------|
| Analyte  | Units      | Level | LCS        | Criteria   |
| Chromium | mg/L (ppm) | 2     | 93         | 80-120     |
| Copper   | mg/L (ppm) | 2     | 93         | 80-120     |
| Nickel   | mg/L (ppm) | 4     | 94         | 80-120     |
| Zinc     | mg/L (ppm) | 2     | 94         | 80-120     |

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

#### **ENVIRONMENTAL CHEMISTS**

James B. Array Phoport: 06/25/03

Charlene Morrow Mysed: 06/12/03
Yelena Araykina, Mistro Self Monitor, PO# M20043, F&BI 306108
Bradley 1. Benson, B.S.
Kurt Johnson, Extracted: 06/24/03

Date Analyzed: 06/24/03

3012 16th Avenue West Seattle, WA 98119-2029 TEL: (206) 285-8282 FAX: (206) 283-5044 e-mail: fbi@isomedia.com

## RESULTS FROM THE ANALYSIS OF THE WATER SAMPLE FOR TOTAL METALS BY INDUCTIVELY COUPLED PLASMA (ICP) (METHOD 6010)

Results Reported as mg/L (ppm)

| Sample ID     | Chromium           | Copper          | Nickel | <u>Zinc</u> |
|---------------|--------------------|-----------------|--------|-------------|
| Laboratory ID |                    |                 |        |             |
| rie din Kin   | 고학 가는 회원들은 교육받는 다음 | 4 in 1984 - 198 |        |             |
| M20043        | 0.13               | 0.16            | 0.12   | < 0.05      |
| 306108-01     |                    |                 |        |             |
|               | 원용하다 경우 사람들        |                 |        |             |
|               |                    |                 |        |             |
| Method Blank  | < 0.05             | < 0.05          | < 0.05 | < 0.05      |

## **ENVIRONMENTAL CHEMISTS**

Date of Report: 06/25/03 Date Received: 06/12/03

Project: Metro Self Monitor, PO# M20043, F&BI 306108

# QUALITY ASSURANCE RESULTS FROM TOTAL METALS BY INDUCTIVELY COUPLED PLASMA (ICP) (METHOD 6010)

Laboratory Code: 306108-01 (Duplicate)

|          | and the same and the | de la Village |           | Relative   |            |
|----------|----------------------|---------------|-----------|------------|------------|
|          | Reporting            | Sample        | Duplicate | Percent    | Acceptance |
| Analyte  | Units                | Result        | Result    | Difference | Criteria   |
| Chromium | mg/L (ppm)           | 0.13          | 0.15      | 14         | 0-20       |
| Copper   | mg/L (ppm)           | 0.16          | 0.15      | 6          | 0-20       |
| Nickel   | mg/L (ppm)           | 0.12          | 0.12      | 0          | 0-20       |
| Zinc     | mg/L (ppm)           | < 0.05        | < 0.05    | nm         | 0-20       |

Laboratory Code: 306108-01 (Matrix Spike)

|   |          | Reporting  | Spike | Sample | % Recove | ery Acceptance |
|---|----------|------------|-------|--------|----------|----------------|
|   | Analyte  | Units      | Level | Result | MS       | Criteria       |
| 4 | Chromium | mg/L (ppm) | 2     | 0.13   | 91       | 80-120         |
|   | Copper   | mg/L (ppm) | 2     | 0.16   | 94       | 80-120         |
|   | Nickel   | mg/L (ppm) | 4     | 0.12   | 95       | 80-120         |
|   | Zinc     | mg/L (ppm) | 2     | < 0.05 | 102      | 80-120         |

Laboratory Code: Laboratory Control Sample

| 그런 기업의 회원의 및 | Reporting  | Spike | % Recove | ery A    | cceptano | e -  |
|--------------|------------|-------|----------|----------|----------|------|
| Analyte      | Units      | Level | LCS      |          | Criteria |      |
| Chromium     | mg/L (ppm) | 2     | 93       | A. Au    | 80-120   | 14.1 |
| Copper       | mg/L (ppm) | 2     | 93       |          | 80-120   |      |
| Nickel       | mg/L (ppm) | 4     | 94       |          | 80-120   | -111 |
| Zinc         | mg/L (ppm) | 2     | 94       | Jan Hard | 80-120   |      |

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

306108

CM 06/12/03 AII

| Send Report To Thompson  Company Alaskan Coppen works  Address 628 S. Handred 50 |                                    |              |  | SAMPLERS (signature) |   |  |              |               |              |               |     | Page # of                               |                      |                 |                                       |  |          |                                       |          |
|--|------------------------------------|--------------|--|----------------------|---|--|--------------|---------------|--------------|---------------|-----|---|----------------------|-----------------|---------------------------------------|--|----------|---------------------------------------|----------|
| Send Report To   | "on pso                            | 1            |  | Ship                 |   |  |              |               |              |               |     |   |                      | TURNAROUND TIME |                                       |  |          |                                       |          |
| Company Alaskan  | J Coxxxer                          | work         | -5   | PROJECT NA           |   |  | ı            |               |              |               | PC  |   | # Standard (2 Weeks) |                 |                                       |  |          |                                       |          |
| (28 C  | 11 000                             | 1            |  | METRO S              | SECF M  | 20~  | الك          | 2             |              | n             | Sc  | YCC                                     | 3                    |                 |                                       |  | s autho  | rized by:                             | -        |
| Address 620 S.   | THANDUR                            | <u>e</u> 50  |  | W.                   | ·   |  |              |               |              |               |     | *************************************** |                      | _               |                                       |  |          |                                       |          |
| City, State, ZIP SEAC  | 175 Cm                             | A 981        | 34   | REMARKS              |   |  |              |               |              |               |     |   |                      |                 |                                       |  | PLE DIS  |                                       |          |
|  |                                    |              |  |                      |   |  |              |               |              |               |     |   |                      |                 |                                       |  | mples    | lays                                  | -        |
| Phone # 206-382-837  | $\frac{9}{1}$ Fax # $\frac{20}{1}$ | 6-582-7      | 1307   | á                    |   |  |              |               |              |               |     |   |                      |                 |                                       |  |          | ructions                              |          |
|  | <del></del>                        | T            |  |                      |   |  |              |               |              | ANA           | LYS | ES R                                    | EQU                  | EST             | ED                                    |  |          |                                       | $\neg$   |
|  |                                    |              |  |                      |   | П  |              | В             |              |               |     | 1                                       | DQC                  | LOI             |                                       |  | 100      |                                       | -        |
|  |                                    |              |  |                      | , ,   | sel  | TPH-Gasoline | BTEX by 8021B | VOCs by 8260 | SVOCs by 8270 |     | 10                                      |                      |                 |                                       |  |          |                                       |          |
| Sample ID  | Lab ID                             | Date         | Time   | Sample Type          | # of  | TPH-Diesel                                       | aso          | 8             | by 8         | by            | HFS | 3                                       |                      |                 |                                       |  |          | Notes                                 |          |
| Sumple 15  | Das 15                             | Date         |  | Sumple Type          | containers  | PH.  | H-G          | X             | Cs           | ္ငင္ပ         | 피   | 3                                       |                      |                 |                                       | '  |          | 110105                                |          |
|  | ,                                  |              |  |                      |   | T  | TP           | BTI           | 8            | SVC           |     | 3                                       | ,                    |                 |                                       |  |          |                                       | ľ        |
| 1000000  |                                    | 1/1          |  | 110                  | <del>  ,                                   </del> |  | -            |               |              |               |     | 4                                       |                      |                 |                                       | <u> </u>   | ·        |                                       | -        |
| m 20043  | 161                                | 6/12/03      | 12:30  | HO                   | (   |  |              |               |              |               |     |   |                      |                 |                                       |  |          |                                       |          |
|  |                                    |              |  |                      |   |  |              |               |              |               |     |   |                      |                 |                                       |  |          |                                       |          |
|  |                                    |              |  |                      |   |  |              |               |              |               |     |   |                      |                 |                                       |  |          |                                       | $\neg$   |
|  |                                    |              | <u> </u>   |                      |   |  |              |               |              |               |     |   |                      |                 |                                       |  |          |                                       |          |
|  |                                    |              |  |                      |   |  |              |               |              |               |     |   |                      |                 |                                       |  |          |                                       |          |
|  |                                    |              |  |                      |   |  |              |               |              |               |     |   |                      |                 |                                       |  |          | · · · · · · · · · · · · · · · · · · · |          |
|  |                                    |              |  |                      |   |  |              |               | 1            |               |     |   |                      |                 |                                       | -  |          |                                       |          |
|  |                                    |              |  |                      |   |  |              | 5             |              |               |     |   |                      |                 |                                       |  |          |                                       |          |
| ·  |                                    |              |  |                      |   |  |              |               |              |               |     |   |                      |                 |                                       |  |          |                                       |          |
|  |                                    | <u> </u>     |  |                      |   |  | -            |               |              | -             |     |   |                      |                 | -                                     |  |          |                                       | $\dashv$ |
|  |                                    |              |  |                      |   |  |              |               |              |               |     |   |                      |                 |                                       |  |          |                                       |          |
| ,  |                                    |              |  |                      |   |  |              |               |              |               |     |   |                      |                 |                                       |  |          |                                       |          |
|  |                                    | <del> </del> | <del>                                     </del> | 1                    |   | <del>                                     </del> |              |               |              |               |     |   |                      | H               | $\vdash$                              | <del>                                     </del> | <u> </u> |                                       | ᅱ        |
|  |                                    | <u> </u>     |  | <u> </u>             | <u> </u>  |  |              |               |              |               |     |   |                      |                 | <u> </u>                              | <u>Ц</u>   | <u> </u> |                                       |          |
| Friedman & Bruya, Inc.   | Relinquished                       | SIGNATU      | RE   | `                    | PRINT   |  |              |               |              | _             |     |   |                      | ANY             |                                       |  | DATE     | TIM                                   | E        |
| 3012 16th Avenue West  | Me                                 | 6            |  | 7 11 3               | 1400  | pso  | ر            |               |              |               |     | A                                       | Ch                   | $\cup$          |                                       | 6  | 112/63   | 1.03                                  |          |
| Seattle, WA 98119 <sub>7</sub> 2029  | Received by:                       | 6            | Sleff  | 10/ la               |   | ()   | 01           | ,<br>J        | a            | A             | 7   | 0                                       | B7                   | <u> </u>        |                                       | 0  | 4/12/0   | × 1:0                                 | 12       |
| Ph. (206) 285-8282   | Relinquished b                     | y:           |  |                      |   |  | _            |               | <u> </u>     | 1             |     |   | _ 1                  |                 | · · · · · · · · · · · · · · · · · · · | 1  | 1000     |                                       | <u>ب</u> |
| Fax (206) 283-5044   | Received by:                       |              |  |                      |   |  |              |               |              | $\dashv$      |     |   |                      |                 |                                       | +  |          | -                                     |          |
| FORMS\COC\COC.DOC  | <u> </u>                           |              |  |                      |   | :-   |              |               |              | Ц.            |     |   |                      |                 |                                       |  |          | 1                                     |          |

#### **ENVIRONMENTAL CHEMISTS**

James E. Bruya, Ph.D. Charlene Morrow, M.S. Yelena Aravkina, M.S. Bradley T. Benson, B.S. Kurt Johnson, B.S. 3012 16th Avenue West Seattle, WA 98119-2029 TEL: (206) 285-8282 FAX: (206) 283-5044 e-mail: fbi@isomedia.com

June 25, 2003

## **DUPLICATE COPY**

#### INVOICE #03ACU0625-2

Accounts Payable Alaskan Copper Works 628 South Hanford Seattle, WA 98134

RE: Project Metro Self Monitor, PO# M20043, F&BI 306108 - Results of testing requested by Gerry Thompson for material submitted on June 12, 2003.

FEDERAL TAX ID #(b) (6)

#### **ENVIRONMENTAL CHEMISTS**

James E. Bruya, Ph.D. Charlene Morrow, M.S. Yelena Aravkina, M.S. Bradley T. Benson, B.S. Kurt Johnson, B.S. 3012 16th Avenue West Seattle, WA 98119-2029 TEL: (206) 285-8282 FAX: (206) 283-5044 e-mail: fbi@isomedia.com

June 25, 2003

Gerry Thompson, Project Manager Alaskan Copper Works 628 South Hanford Seattle, WA 98134

Dear Mr. Thompson:

Included are the results from the testing of material submitted on June 12, 2003 from the Metro Self Monitor, PO# M20043, F&BI 306108 project. There are 2 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

warraM endrad

Charlene Morrow

Chemist

Enclosures ACU0625R.DOC

#### **ENVIRONMENTAL CHEMISTS**

James E. Bruya, Ph.D. Charlene Morrow, M.S. Yelena Aravkina, M.S. Bradley T. Benson, B.S. Kurt Johnson, B.S. 3012 16th Avenue West Seattle, WA 98119-2029 TEL: (206) 285-8282 FAX: (206) 283-5044 e-mail: fbi@isomedia.com

June 25, 2003

Gerry Thompson, Project Manager Alaskan Copper Works 628 South Hanford Seattle, WA 98134

Dear Mr. Thompson:

Included are the results from the testing of material submitted on June 12, 2003 from the Metro Self Monitor, PO# M20043, F&BI 306108 project. There are 2 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Charlene Morrow,

Charlene Morrow

Chemist

Enclosures ACU0625R.DOC